



Chandler • Arizona
Where Values Make The Difference

Civil Engineering Paving Plan Review Checklist

Project:	
Location:	

Item Number Proofing Marks	
/	Requirement satisfied.
O	Requirement not satisfied.
?	Unable to determine status, more information is required.
X	Not applicable.

Review #	Reviewed By	Date
1		
2		
3		
4		
5		

The requirements referred to on the checklist can be found within Chapter 48 Subdivisions of the City Code and the City's Technical Design Manuals.

Item	Requirement	Comments
1.	The paving plans must conform to the requirements of the Construction Plans Review Checklist.	
2.	Include the Paving Notes on the cover or detail sheet.	
3.	The overhead utility lines on or adjacent to this site must be undergrounded. Please add the following note to the cover sheet: The improvements shown on this set of plans will not be fully approved by the City, and the Certificate of Occupancy will not be issued, until the overhead utility line undergrounding and/or 69KV pole relocation requirement has been satisfied.	
4.	Underground the existing irrigation facilities on or	

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	<p>adjacent to this site. Please add the following note to the cover sheet:</p> <p>The improvements shown on this set of plans will not be fully approved by the City and the Certificate of Occupancy will not be issued until the irrigation facility undergrounding requirement has been satisfied.</p> <p>5. Please add the following note to the cover sheet:</p> <p>The existing retention and drainage facilities on this site will not be removed from service until the permanent retention and drainage facilities are functional.</p> <p>6. This project includes arterial frontage. In addition to the design of the arterial frontage adjacent to the project, provide conceptual design of the arterial from the project boundaries to ¼ mile in each direction or to the nearest arterial intersection; whichever is the lesser distance.</p> <p>7. Submit a soils report containing the following items:</p> <p>A. Atterberg Limits test results.</p> <p>B. Sieve analysis, gradation, test results.</p> <p>8. The pavement cross-section design shown on the plans must comply with City standards.</p> <p>9. Remove shading to facilitate microfilming.</p>	

Item	Requirement	Comments
10	<p>Show on the detail sheet the typical sections for each street to be improved. The sections must include the following items:</p> <ul style="list-style-type: none"> A. Right-of-way width. B. Width of sidewalk. C. Width of improved surface; see the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for half-street minimum width requirements. D. Type of curb and gutter; e.g. roll, vertical or ribbon. E. Pavement cross-section. Include preservative seal coat for local and collector streets. F. Minimum allowable pavement cross-slope. Inverted crowns are not allowed under any circumstances. G. Pavement structural sections must conform to soils report test results. See C-239 through C-242 for minimum base course depth requirements. 	
11	<p>Identify all portions of the development within the FEMA 100-year flood zones. If there are any such areas, submit plans to Flood Control District of Maricopa County. FCDMC approval is required.</p> <ul style="list-style-type: none"> A. Add the following approval block to the cover sheet: <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>FLOOD CONTROL DISTRICT DATE OF MARICOPA COUNTY</p> </div> <ul style="list-style-type: none"> B. Acquire Flood Control District of Maricopa County approval and signature. 	
12	<p>If a model home area is part of the project, provide an all-weather fire apparatus access roadway prior to constructing any structure or bringing combustibles on-site. The roadway must be a minimum of 20 feet unobstructed width. The surface must consist of a minimum of 6 inch ABC at 100% compaction, on 6" subgrade compacted to 95%. Provide access roadways exceeding 150 feet long with an approved turn around (per City of Chandler Standard Detail FD141) or looped roadway.</p>	
13	<p>Bus bays or deceleration lanes are required; see the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for construction details.</p>	

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14	Show the scale on each sheet. See the City's <i>Technical Design Manual 4 - Street Design and Access Control</i> for requirements.	
15	Show the following utility reference items on each sheet: <ul style="list-style-type: none"> A. Show all existing utilities plan view. B. Show all proposed utilities in plan view. C. Show utility crossings in profile view when the crossings are not shown on utility plan sheets. D. Adjust all existing and proposed manholes under new pavement to grade per MAG Std Dtl 422 and Section 345 with concrete collar per C-401, and note on the plan view. E. Adjust all existing and proposed valve boxes and covers affected by construction to grade per C-307, and C-317 in unpaved areas, and note on the plan view. 	
16	Show the following design items on each sheet in plan view: <ul style="list-style-type: none"> A. Existing right-of-way, with width dimensioned. B. Existing pavement, with width dimensioned. C. Existing curbs, with width dimensioned. D. Existing sidewalk, with width dimensioned. E. Existing sidewalk ramps. F. Proposed right-of-way, with width dimensioned. G. Proposed pavement, with width dimensioned. H. Proposed curbs, with width dimensioned and standard detail number call-out. I. Proposed sidewalk, with width dimensioned and standard detail number call-out. J. Proposed sidewalk ramps at curb returns (MAG Std Dtl 235 Type 'B' for vertical and C-244 for roll curb conditions). K. Proposed sidewalk ramps at "T" intersections (MAG Std Dtl 235 Type 'E' for vertical and C-243 for roll curb conditions) located per C-249. The City Engineer may approve a modified ramp should space be a problem. L. A sidewalk ramp (MAG Std Dtl 235 'E' for vertical and C-243 for roll curb conditions) at bubble is required per C-249. This is applied on an as needed basis unless voluntarily 	

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	included. A modified ramp may be allowed.	
	M. Note existing items "to be protected in place"	
	N. Show all existing water wells within the right-of-way on the plans with their Arizona Department of Water Resources registration number. If not registered, so note on the plans.	
17	All curb-opening catch basins access covers shall be per MAG Std Dtl 536, Alternate Cover, and must be so noted on the plans.	
18	Add note to plans: Existing trees within the City right-of-way to be protected in place or replaced in kind. Contact the City of Chandler Streets Division at (480) 782-3500 prior to start of construction.	
19	The following design items must be shown on each sheet in profile view: A. Existing grade at right curb line. B. Existing grade at left curb line. C. Existing grade at centerline. D. Proposed grade at right curb line. E. Proposed grade at left curb line. F. Proposed grade at right median curb. G. Proposed grade at left median curb. H. Proposed grade at centerline. I. Proposed centerline elevation at curb return station on crown run-outs. Inverted crowns are not allowed. J. Label the proposed longitudinal grades. Compute longitudinal grades on curves based on their true lengths. The longitudinal grades must comply with City standards, 0.2% minimum. K. Storm drain crossings. L. Utility and other crossings whenever minimal cover, 1' or less below subgrade, is encountered.	
20	Show the following additional items on each sheet in plan view: A. Valley gutters at all locations where storm water will cross the street, with width and standard detail number called out or detailed.	

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	<p>Show 3' width per MAG Standard Detail 240 at street intersections where there is stop control for through traffic. Show 8' width per City of Chandler Standard Detail C-233 where there is no stop control for through traffic.</p> <p>All valley gutters must have 1" depression to the flowline.</p> <p>B. Curb transitions, with standard detail number call-out.</p> <p>C. Curb return radii per City standards.</p> <p>D. Curb radii at cul-de-sacs and "bubbles" per City standards.</p> <p>E. Survey monuments, with standard detail number call-out.</p> <p>F. City limits where applicable.</p>	
21	<p>Show construction details, plan and profile views for all proposed drainage facilities, such as:</p> <p>A. Storm drains.</p> <p>B. Catch basins.</p> <p>C. Hydraulic profile must be shown.</p> <p>D. Scuppers. Profiles must include elevations at grade breaks and dimensions and elevations demonstrating no ponding in right of way.</p> <p>E. When catch basins are proposed within the right-of-way, the plans shall also specify:</p> <ol style="list-style-type: none"> 1) Storm drain inlet marker per C-508. 2) Curb and gutter transition per MAG Std Dtl 532. 3) Alternate cover for curb-opening catch basins per MAG Std Dtl 536. 4) Bicycle-safe grate for grated basins. <p>F. Trash rack with hinges on bottom are required at all open ends of pipe 12" or more in diameter. Specify C-503.</p> <p>G. A safety rail in accordance with MAG Std Dtl 145 is required along the top edge of structures adjacent to public pedestrian access ways where the grade difference is 30" or greater.</p> <p>H. Structures which present a fall hazard of 48" or greater shall have a safety rail per MAG Std Dtl 145.</p>	
22	Show the following traffic engineering items in plan	

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	<p>view:</p> <ul style="list-style-type: none"> A. Street sign bases per C-613. B. Traffic control devices. <ul style="list-style-type: none"> 1) Stop sign = MUTCD R1-1, 30" x 30". 2) Speed limit = MUTCH R2-1, 24" x 30", speed per street class. C. Temporary turn-around at dead-end streets and phase lines. D. MAG Std Dtl 130 Type B Barricade with an 18"x18" End of Road Marker, MUTCD OM4-3 (retroreflective red diamond panel), spaced 5' on center along the barricade is required. E. Signing and striping plans for arterials and/or special conditions. F. Signal conduit, 4" diameter schedule 40 PVC with ADOT #7 pull boxes at future signalized intersections (four-way). G. Interconnect conduit, 4" diameter schedule 40 PVC with three 1-1/4" innerduct with ADOT #9 pull boxes at arterial/arterial intersections and ADOT #7 pull boxes, with extension, at 1/4 mile intervals. 	
23	<p>Show the following survey design items on each sheet:</p> <ul style="list-style-type: none"> A. Station numbers with sheet reference at all match lines in plan or profile. B. Centerline survey data. C. Station numbers at all changes in street alignment, intersections, curb returns, and grade breaks in profile. D. Gutter and centerline spot elevations at all grade breaks. E. Gutter spot elevations at all intersections. F. Centerline spot elevations at all intersections. G. Show grade breaks in plan. 	
24	<p>Street geometrics must meet City standards for the following items:</p> <ul style="list-style-type: none"> A. Centerline radii. B. Tangent lengths between curves. C. Tangent lengths at intersections. D. Pavement tapers. E. Intersection angles. F. Vertical curve lengths. 	

Item	Requirement	Comments
	<ul style="list-style-type: none"> G. Maximum longitudinal slope changes. H. Barrier median construction. I. Driveway installations. 	
25	Sufficient existing off-site elevations required to determine grade and direction of slope.	
26	Structural design calculations are required for storm drains subject to wheel loading.	
27	<p>An easement or right-of-way dedication is required by separate instrument. Please provide the following exhibits and/or information along with the easement document:</p> <ul style="list-style-type: none"> A. Subdivision name. B. Type of easement/R.O.W. C. Reason or purpose of the easement/R.O.W. and why required. D. Vicinity Map showing major cross streets. E. Legal description with RLS certification Labeled "Exhibit A". F. Detail map showing the easement/R.O.W. Exhibit B". G. Standard owners policy preliminary title report no older than 60 days. H. If right-of-way is to be dedicated, provide for review a Phase 1 Environmental Assessment in compliance with ASTM E 1527 (current form) <i>Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process</i>. <p>The City's Real Estate Division will review and record the deeds and easements.</p>	
28	<p>A street cut application must be submitted to the City and approved by the City Engineer prior to plan approval. The status of your application is:</p> <ul style="list-style-type: none"> A. Please submit application. B. Application is currently under review. C. Application has been denied. D. Application has been approved. 	

Prior checklists and plans are required for subsequent submittals.

City Use Only

1. Street Supervisor review?
2. Traffic Engineer review?